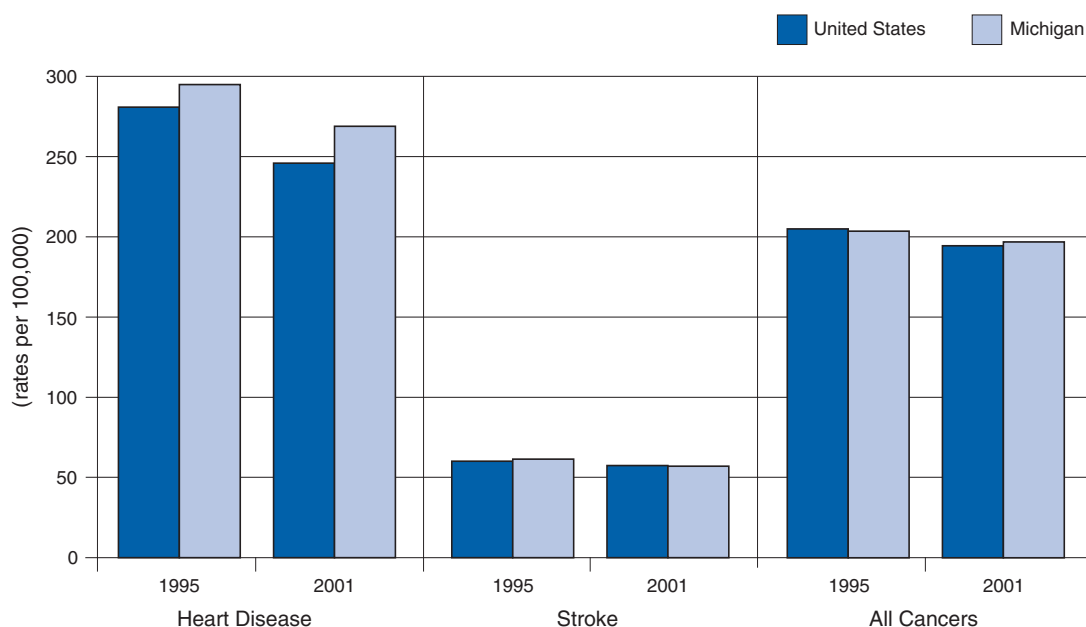


## Chronic Diseases: The Leading Causes of Death

### The Leading Causes of Death

United States and Michigan, 1995 and 2001



Source: National Center for Health Statistics, 2003

### The Burden of Chronic Disease

Chronic diseases—such as heart disease, stroke, cancer, and diabetes—are among the most prevalent, costly, and preventable of all health problems. Seven of every ten Americans who die each year, or more than 1.7 million people, die of a chronic disease.

### Reducing the Burden of Chronic Disease

Chronic diseases are not prevented by vaccines, nor do they just disappear. To a large degree, the major chronic disease killers are an extension of what people do, or not do, as they go about the business of daily living. Health-damaging behaviors—in particular, tobacco use, lack of physical activity, and poor nutrition—are major contributors to heart disease and cancer, our nation's leading killers. However, tests are currently available that can detect breast cancer, colon cancer, heart disease, and other chronic diseases early, when they can be most effectively treated.

# The Leading Causes of Death and Their Risk Factors

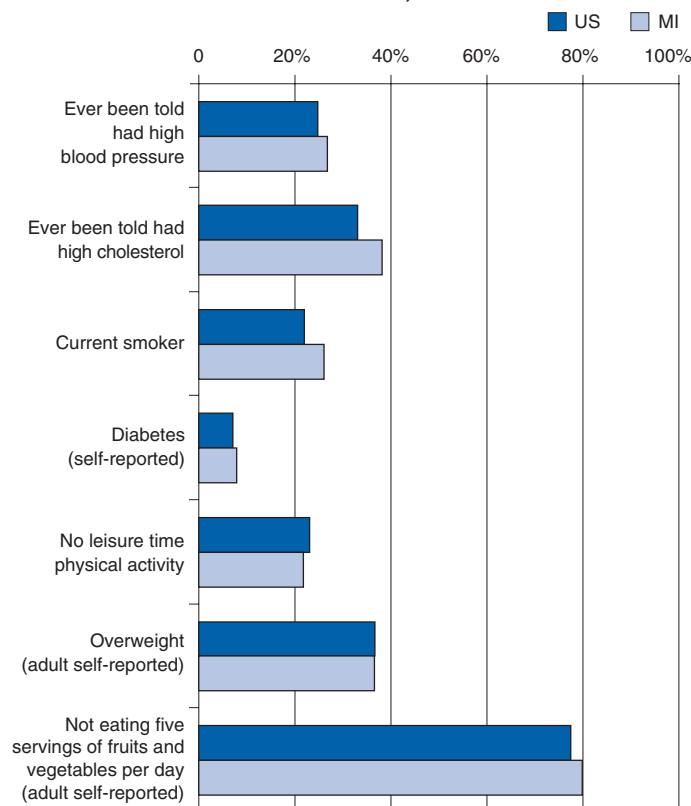
## Heart Disease and Stroke

Heart disease and stroke are the first and third leading causes of death for both men and women in the United States. Heart disease is the leading cause of death in Michigan, accounting for 26,896 deaths or approximately 31% of the state's deaths in 2001 (the most recent year for which data are available). Stroke is the third leading cause of death, accounting for 5,701 deaths or approximately 7% of the state's deaths in 2001.

### Prevention Opportunities

Two major independent risk factors for heart disease and stroke are high blood pressure and high blood cholesterol. Other important risk factors include diabetes, tobacco use, physical inactivity, poor nutrition, and being overweight or obese. A key strategy for addressing these risk factors is to educate the public and health care practitioners about the importance of prevention. All people should also partner with their health care providers to have their risk factor status assessed, monitored, and managed in accordance with national guidelines. People should also be educated about the signs and symptoms of heart attack and stroke and the importance of calling 911 quickly. Forty-seven percent of heart attack victims and about the same percentage of stroke victims die before emergency medical personnel arrive.

Risk Factors for Heart Disease and Stroke, 2003



Source: BRFSS, 2004

## Cancer

Cancer is the second leading cause of death and is responsible for one of every four deaths in the United States. In 2004, over 560,000 Americans—or more than 1,500 people a day—will die of cancer. Of these annual cancer deaths, 19,870 are expected in Michigan. About 1.4 million new cases of cancer will be diagnosed nationally in 2004 alone. This figure includes 48,220 new cases that are likely to be diagnosed in Michigan.

Estimated Cancer Deaths, 2004

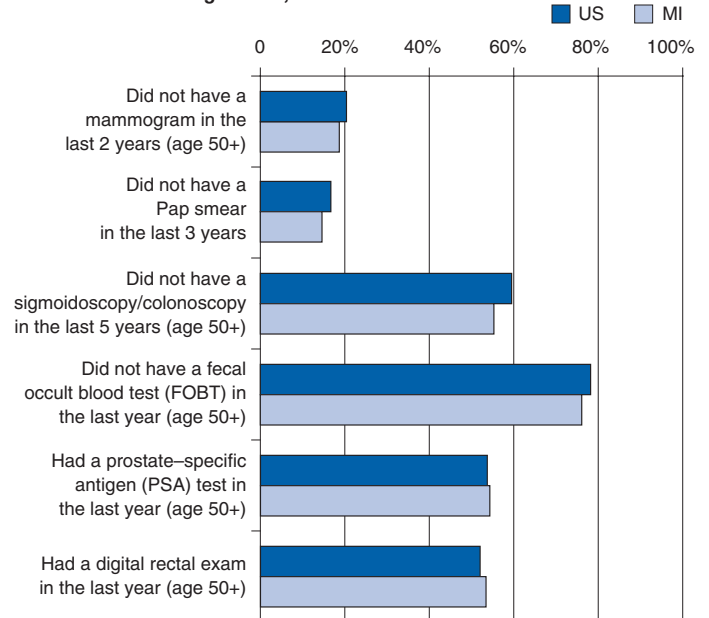
Cause of death	US	MI
All Cancers	563,700	19,870
Breast (female)	40,110	1,350
Colorectal	56,730	1,900
Lung and Bronchus	160,440	5,690
Prostate	29,900	1,110

Source: American Cancer Society, 2004

### Prevention Opportunities

The number of new cancer cases can be reduced and many cancer deaths can be prevented. Adopting healthier lifestyles—for example, avoiding tobacco use, increasing physical activity, achieving a healthy weight, improving nutrition, and avoiding sun overexposure—can significantly reduce a person's risk for cancer. Making cancer screening, information, and referral services available and accessible is essential for reducing the high rates of cancer and cancer deaths. Screening tests for breast, cervical, and colorectal cancers reduce the number of deaths by detecting them early.

Preventive Screening Trends, 2002



Source: BRFSS, 2003

# Michigan's Chronic Disease Program Accomplishments

## Examples of Michigan's Prevention Successes

- Statistically significant decreases in cancer deaths among men and women across all races, with the greatest decrease among African American men (373.7 per 100,000 in 1990 versus 314.3 per 100,000 in 2000).
- An 11.7% decrease in the number of women older than age 50 who reported not having had a mammogram in the last 2 years (from 30.4% in 1992 to 18.7% in 2002).
- A lower prevalence rate than the corresponding national rate for women older than age 18 who reported not having had a Pap smear in the last 3 years (14.6% in Michigan versus 16.7% nationally).

## CDC's Chronic Disease Prevention and Health Promotion Programs

In collaboration with public and private health organizations, CDC has established a national framework to help states obtain the information, resources, surveillance data, and funding needed to implement effective chronic disease prevention programs and ensure that all Americans have access to quality health care. CDC funding and support enable state health departments to respond efficiently to changing health priorities and effectively use limited resources to meet a wide range of health needs among specific populations. The table below is a breakdown of the CDC's funding awards to Michigan in the areas of cancer, heart disease, stroke, and related risk factors.

**CDC Cancer, Heart Disease, Stroke, and Related Risk Factor Funding for Michigan, FY 2003**

<b>SURVEILLANCE</b>	
Behavioral Risk Factor Surveillance System (BRFSS) <i>Michigan BRFSS</i>	\$225,000
National Program of Cancer Registries <i>Michigan Department of Community Health</i>	\$500,529
<b>CHRONIC DISEASE PREVENTION AND CONTROL</b>	
Cardiovascular Health Program	\$0
Diabetes Control Program <i>Upper Peninsula Diabetes Outreach Network</i> <i>Certified Diabetes Outpatient Education Program</i> <i>Local Health Department Diabetes Project</i>	\$864,960
National Breast and Cervical Cancer Early Detection Program <i>Breast and Cervical Cancer Control Program</i>	\$8,273,828
National Comprehensive Cancer Control Program <i>Michigan Cancer Consortium Initiative</i> <i>Michigan Plan for Action</i>	\$1,229,173
WISEWOMAN <i>Michigan Department of Community Health</i>	\$750,000
<b>MODIFYING RISK FACTORS</b>	
National Tobacco Prevention and Control Program <i>Michigan Tobacco Prevention and Control Program</i>	\$1,700,000
State Nutrition and Physical Activity/Obesity Prevention Program	\$0
Racial and Ethnic Approaches to Community Health (REACH 2010) <i>Community Health and Social Services Center</i> <i>Genesee County Health Department</i> <i>Migrant Health Promotion, Inc.</i>	\$911,467 \$930,391 \$904,900
<b>Total</b>	<b>\$16,290,248</b>

The shaded area(s) represents program areas that are not currently funded. The above figures may contain funds that have been carried over from a previous fiscal year.

## Additional Funding

CDC's National Center for Chronic Disease Prevention and Health Promotion funds additional programs in Michigan that fall into other health areas. A listing of these programs can be found at <http://www.cdc.gov/nccdphp/states/index.htm>.

# Opportunities for Success

## Chronic Disease Highlight: Obesity and Diabetes

Michigan has the third highest obesity rate in the nation. According to 2003 data from CDC's Behavioral Risk Factor Surveillance System (BRFSS), 25.2% of adults are obese in Michigan, compared to the national average of 22.8%. Contributing to the problem of obesity are the risk factors of poor nutrition and physical inactivity. In 2003, 21.8% of adults in Michigan reported having no leisure time physical activity at all; the corresponding rate for adults in the United States was 23.1%. In addition, one third of Michigan students in grades 9 through 12 did not participate in the recommended amount of both moderate and vigorous physical activity during the week. Nearly 80% of adults in Michigan reported consuming less than 5 servings of fruits and vegetables per day, compared to the national rate of 77.5%.

Diabetes is a chronic disease that is strongly related to obesity. In 2002, 560,000 adults reported that they had diabetes, giving Michigan the 8th highest adult diabetes incidence rate in the nation. Although the incidence of diabetes in Michigan is high, the state's diabetes death rate—26.9 per 100,000—is close to the national average of 25.2 per 100,000. BRFSS data from 2000 indicated that over a quarter of Michiganders with diabetes reported that they were currently taking insulin to treat their diabetes.

A 2003 report by the Michigan Fitness Foundation showed that the 4 million adults in Michigan who were physically inactive generated costs of nearly \$8.9 billion in 2002. Employees—through health insurance premiums, lost productivity, and Medicaid payments—bore most of these costs. In addition, a report from the Michigan Department of Community Health revealed that in 2002 estimated diabetes-related medical expenditures in Michigan exceeded \$4.7 billion, with an additional \$5.7 billion a year in lost productivity due to premature death, disability, and illness.

To address the issues of obesity and diabetes, the Michigan Department of Health developed the Michigan Diabetes Strategic Plan. The state's efforts to combat these diseases include expanding diabetes primary prevention activities, developing an ongoing public awareness campaign, developing a statewide diabetes consumer advisory group, reducing diabetes-related health disparities among minority populations, and providing quality diabetes pregnancy-related care and education to women.

*Text adapted from Michigan Surgeon General's Health Status Report: Healthy Michigan 2010 (2004).*

## Disparities in Health

According to the 2000 Census, Michigan had the 8th largest population in the United States, with over three quarters of its residents living in metropolitan areas. The state's minority populations are increasing in proportion to the population as a whole. Cardiovascular disease (CVD) has been the number one cause of death in Michigan since the early 1900's; 4 out of every 10 deaths in Michigan is attributed to CVD. From 1996 to 2000, the heart disease death rate among Michigan's African Americans, who comprise about 13% of the state's population, was 709 per 100,000, compared with the national rate for African Americans of 662 per 100,000. The heart disease death rate among Michigan's African Americans is also higher than the rate among whites in the state (709 per 100,000 versus 561 per 100,000).

According to 2003 data from CDC's Behavioral Risk Factor Surveillance System, the rate of obesity among African Americans in Michigan (34.8%) was higher than the rate among whites (23.7%). Approximately 66.0% of African Americans in Michigan were at risk for health problems related to being overweight, putting them more at risk than either whites (61.4%) or Hispanics (60.4%). Although 72.2% of African Americans in Michigan report participating in physical activity, the percentage is lower than that of their white counterparts (79.4%). In addition, African Americans were less likely to report consuming 5 or more servings of fruits and vegetables per day than whites (16.3%, compared with 20.0%).

The increase in diabetes prevalence in Michigan has been higher than the increase in other states. Approximately 11% of African Americans in Michigan report that they have been diagnosed with diabetes, compared with approximately 7% of whites. The diabetes death rate for African Americans in Michigan is significantly higher than the rate for whites (40.8 per 100,000 versus 25.2 per 100,000).

## Other Disparities

- **Smoking:** In Michigan, 29.6% of African Americans were smokers in 2003, compared with 25.5% of whites.
- **Stroke:** Between 1991 and 1998 in Michigan, the stroke death rate among African Americans (151 per 100,000) was higher than the rate among whites (121 per 100,000).
- **High Blood Pressure:** African Americans in Michigan were more likely to report having been told that they have high blood pressure than whites (38.9% versus 26.0%).

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For more information, additional copies of this document, or copies of publications referenced in this document, please contact the Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Mail Stop K-42, 4770 Buford Highway NE, Atlanta, GA 30341-3717 | Phone: (770) 488-5706 | Fax: (770) 488-5962  
E-mail: [ccdinfo@cdc.gov](mailto:ccdinfo@cdc.gov) | Web: <http://www.cdc.gov/nccdphp>